

# Inventory Cost Flow Assumptions

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## WHAT'S COVERED

This tutorial will cover inventory cost flow assumptions, by reviewing three inventory valuation methods previously discussed and introducing one additional method.

Our discussion breaks down as follows:

## 1. FIFO

To review, FIFO is an inventory valuation method, which stands for First In First Out:

First  
In  
First  
Out

Under FIFO, goods are assumed to be sold oldest to newest. Goods that were purchased first are the first to be sold and the newest or latest goods are assumed to remain in inventory.

Cost of Goods Sold Calculation				
	Beginning Inventory			\$500
	+ Cost of Goods Purchased			\$5400
	= Goods Available for Sale			\$5900
	- Ending Inventory			\$1500
	= Cost of Goods Sold			\$4400
Beginning Inventory and Purchases				
Date	Explanation	Units	Cost/Unit	Total Cost
1/1	Beginning Inventory	50	\$10	\$500
4/1	Purchase	150	\$12	\$1800
7/1	Purchase	200	\$14	\$2800
10/1	Purchase	50	\$16	\$800
	Total	450		\$5900
Ending Inventory*				
Date		Units	Cost/Unit	Total Cost
10/1		50	\$16	\$800
7/1		50	\$14	\$700
	Total	100		\$1500
*assume 100 units left in ending inventory				

A benefit to using FIFO is that it resembles the physical flow of goods.

➔ **EXAMPLE** Grocery stores or electronic stores, for example, want the inventory that they purchased first--their oldest products--to be sold first. In the case of grocery stores, they want to sell the oldest merchandise first so that their food doesn't spoil.

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## 2. LIFO

LIFO, you may recall, is an inventory valuation method, which stands for Last In First Out:

Last  
In  
First  
Out

Under LIFO, goods are assumed to be sold newest to oldest, meaning goods that were purchased last or most recently are the first to be sold. The oldest goods, or goods that were purchased first, are assumed to remain in inventory.

Cost of Goods Sold Calculation				
		Beginning Inventory		\$500
		+ Cost of Goods Purchased		\$5400
		= Goods Available for Sale		\$5900
		- Ending Inventory		\$1100
		= Cost of Goods Sold		\$4800
Beginning Inventory and Purchases				
Date	Explanation	Units	Cost/Unit	Total Cost
1/1	Beginning Inventory	50	\$10	\$500
4/1	Purchase	150	\$12	\$1800
7/1	Purchase	200	\$14	\$2800
10/1	Purchase	50	\$16	\$800
	Total	450		\$5900
Ending Inventory*				
Date		Units	Cost/Unit	Total Cost
1/1		50	\$10	\$500
4/1		50	\$12	\$600
	Total	100		\$1100
*assume 100 units left in ending inventory				

The argument for using LIFO centers on matching current costs with current revenues. Newer purchases, which represent current costs, are recorded as cost of goods sold, and that expense is matched with current revenues.

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## 3. Weighted Average Method

The last inventory valuation method to review is the weighted average method, which is based on the average cost per unit. The weighted average method is based on total cost and total units. The total cost of inventory units available for sale is divided by the total units that are available for sale, to provide the average cost per unit.

Cost of Goods Sold Calculation				
		Beginning Inventory		\$500
		+ Cost of Goods Purchased		\$5400
		= Goods Available for Sale		\$5900
		- Ending Inventory		\$1311
		= Cost of Goods Sold		\$4589
Beginning Inventory and Purchases				
Date	Explanation	Units	Cost/Unit	Total Cost
1/1	Beginning Inventory	50	\$10	\$500
4/1	Purchase	150	\$12	\$1800
7/1	Purchase	200	\$14	\$2800
10/1	Purchase	50	\$16	\$800
	Total	450		\$5900
		Units		Total Cost
		450		\$5900
	Average Cost Per Unit = \$5900 / 450 =			\$13.11
Ending Inventory*				
		Units	Cost/Unit	Total Cost
	Total	100	\$13.11	\$1311
*assume 100 units left in ending inventory				

For the weighted average method, there is no concern for the timing of inventory purchases. It doesn't matter if inventory was purchased at the beginning of the period or at the end of the period--it's all based on the average cost per unit.

The argument for using the weighted average method is that inventory is very complex and it can be difficult to determine which exact units you're selling. Are you selling the units you purchased at the beginning of the period, or are you selling the units purchased at the end of the period? As you can see, it can be difficult to monitor and measure the exact flow of your inventory.

## 4. Specific Identification Method

Now let's introduce one more inventory valuation method known as specific identification method. This method is useful if your inventory is exactly known, if you have a low volume business, and if you are able to specifically identify which items are sold and which remain in inventory.

➞ **EXAMPLE** For example, suppose you have a car dealership that only has eight cars. Because you can count the eight cars, you don't need to worry about FIFO, LIFO, or the weighted average method. The specific identification method is not very common, because, as mentioned, it's only useful if you have this type of low volume business. This inventory method is usually for big-ticket items such as real estate or luxury yachts.



### SUMMARY

Today we conducted a review of inventory valuation methods: **FIFO** (First In First Out), **LIFO** (Last In First Out), and the **weighted average method**. We also introduced an additional inventory valuation method known as the **specific identification method**.

Source: Adapted from Sophia instructor Evan McLaughlin.